Spring/Summer 2010

CAMBRIDGE ARCHITECTURE

City suburb

Housing possibilities in an urban extension

60

Cambridge Association of Architects
www.architecture.com/cambridgegazette

featuring
Awards for local architecture
Reactions to 'Time to wise up' in our last issue
Testing housing layouts for Trumpington Meadows
A selection of recent buildings by Cambridge architects

THE EDITORS

EDITORIAL FOCUS

Our sixtieth issue. Time to look back at the recent past and forward to the future. What, exactly, is the gazette trying to do – and is it effective?

For the last two years, each issue has focused on the city's urban extensions. Initially, we did this to plug a huge information gap on the reasons for the expansion and its proposed form. Following the *Expanding city* issue (CAg 57), we moved on to looking at those parts of the existing city which are crying out for attention, publishing the outcome of the Cambridge Association of Architects' (CAA) public realm charrette in the following issue, *A better city* (CAg 58).

Our last issue, *Campus city* (CAg 59), attempted to address three topical concerns: the implications of economic retrenchment, the nature of our peripheral 'knowledge' enclaves and the potential of using design during 'consultation'. Responses varied from the outraged to the approving (p. 3).

In this issue, *City suburb*, we revert to the extensions, reporting on the testing of the draft design code for Trumpington Meadows (pp. 4-11). We are also pleased to include an article on density and built form based on work by the Joint Urban Design Team (pp. 12-13). Our next issue will, we hope, feature the outcome of a housing charrette, studying alternative carbon neutral house forms suitable for the urban extensions.

Demonstrating possibilities

In pursuing a policy of engaging with the planning challenges facing the city-region, the editors and active members of the Association agree that, for the moment, this is the topic on which we can, through the gazette and design charrettes, make the greatest contribution to debate. We recognise that, as design professionals, it is our responsibility to demonstrate possibilities and clarify issues but it is only society that can decide which course of action to adopt.

Is the gazette effective? That's not for us to judge. But we'd like to think that, together with the CAA, we are – in increasingly challenging times – making a contribution to the common good. And, since architecture involves, on occasion, (non party) political action, we may, from time to time, upset some of our friends. It would be odd if we didn't.

CIRCULATION

Produced by the Cambridge Association of Architects, the gazette is, thanks to our advertisers and sponsors, a free publication. Sent to all chartered architects in the Cambridge region, it is also mailed to many other interested persons and available from selected public outlets. Indeed, the number of non-architect readers is twice that of the architects – and growing. Both the current and back issues may be viewed at www.architecture.com/cambridgegazette

NEWS

CHARRETTE EN RETARD

February's postponed housing charrette is now scheduled for October. Organised by the Cambridge Association of Architects, Cambridge City Council and Savills, it will focus on the design of new housing types, to produce a pattern book of standard house types for 2020.

The sites for study will be in the Trumpington Meadows development (see pp. 4-11).

Over the coming weeks, the brief and invitation to participate will be issued and expressions of interest received. 'Match-making' between house-builders and architects should commence in September. The event will take place in the Guildhall from 9.00 am to 7.00 pm on 22 October. It will form the focus of our next issue.

AWARDS A-PLENTY

From the restoration of a great neo-classical dining hall to the construction of a small town house, local architectural excellence has been recognised by three award programmes.

Downing College has won an RIBA Award for Caruso St John's renovation of its dining hall [1] and senior combination room. The citation states that 'the College is delighted with the intellectual engagement of the architects and their use of a language of materials, rhythm and scale to separate and link the 1960s buildings, the new spaces and the dining hall.'

The 'extraordinary and intriguing' Creative Exchange in St Neots [2] also won an RIBA Award. Commissioned by Huntingdonshire District Council to facilitate rural business development, the award jury considered the experience of this 'complex' building to be that of 'an exhilarating tree house' in which the materials display a touch of 'Hoxton chic'. The architects were Cambridge-based 5th Studio.

The Spirit of Ingenuity Home Award went to Jeremy Ashworth and Emma Parkes for their Hairy House (so named by one of their children after the 'green' roof) in Auckland Road, Cambridge [3]. This three-bedroom house achieves an extraordinarily spacious feel despite the limitations of its enclosed 7.5 by 10.5 metre plot, on-site parking and window restrictions.

The Sustainability Award went to Graeme Lockhart for Laburnam House, on open countryside near Ely [4]. The landscaping of the extensive site includes sixty-six semi-mature trees to offset the material used in the construction of the exposed timber frame.

Ely-based Mole Architects swept the board in Cambridge City Council's very own awards – the David Urwin Awards – selected for carbon performance, environmental design, creative approaches to site constraints and future adaptability.

One award was for a house in Cavendish Avenue (featured in CAg 57) [5] and the other, submitted in association with Freeland Rees Roberts, for the University of Cambridge Department of Architecture's studio extension to the rear of 1-5 Scroope Terrace [6].

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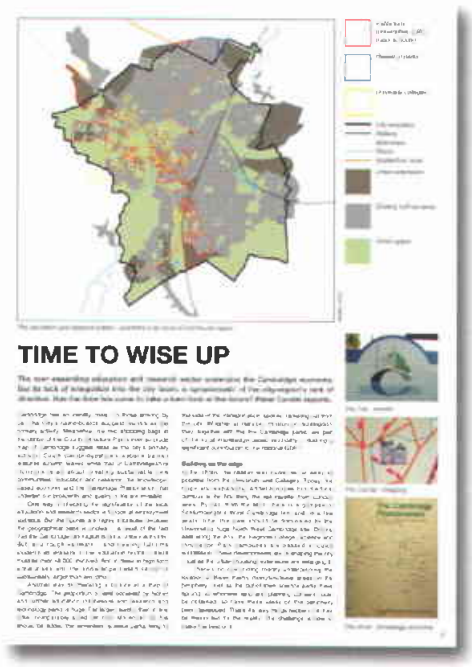
CAg 59 REACTIONS

TIME TO MOVE ON

'Time to wise up' (CAg 59 pp. 3-5) – a plea for a hard look at the future of the city-region – provoked comments, ranging from outraged to complimentary. Its author, Peter Carolin, reports on these reactions.



The *Cambridge News* headline didn't help. Without so much as a tip-off from CAg's editors, it spotted our feature and ran a story headlined 'Experts slam lack of planning vision'. Quoting long sections of my article and Professor Arnoud de Meyer's comments, it reached the bizarre conclusion that my 'paramount' objective was 'signs leading into the city reading "Cambridge Centre of the Knowledge Economy"'.

For some interested parties, who up to then had not read the gazette, the CN story was – bizarre or not – bad news. E-mails started flying. 'I've never read so much crap in my life', read one. Another, admitting to 'immense sadness' at the article's prominence in the CN, thought it treated the work of the last twenty years as 'a complete waste of time'.

Peter Studdert, Director of Joint Planning for Cambridge's Growth Areas, was particularly irritated 'about this stuff about an identity crisis. "Is Cambridge a tourist city or a shopping city or a knowledge city or a part of the London region?". ....It's all four, and in fact it's even more – it's a regional capital. It's all of these things that makes Cambridge such an exciting and successful place!' Concluding, Studdert asked CAg – 'a great read normally', – to be a bit more positive. 'We need to get on with implementing the excellent strategy we already have.' [See pp. 4-11 in this issue.]

Graduate accommodation and Mill Lane

Professor de Meyer's assertion that the City has no interest in expanding postgraduate education brought a swift response from Sian Reid, then Executive City Councillor for climate change and growth. 'I doubt if there is a City Council anywhere more willing to nurture the expansion of the University in the directions which it sees fit for itself.'

As an aside, Reid also praised Bobby Open's Mill Lane drawing as 'a really valuable contribution to the debate ... the (text) is however rather out of date ... and (based on) a pre-consultation draft.' We should have made that clear – the feature was a criticism of 'workshops' and 'consultation' in a design-less context. As Reid observed, the revised Mill Lane Supplementary Planning Document now states that 'the University needs to masterplan (the area) before anything goes any further'.

Just how effective 'visioning' exercises like Open's sketch for Mill Lane can be – as opposed to endless design-free 'consultation workshops' – was demonstrated by the response of one workshop attendee, Jon Harris. The 'clear assessment of what might be ... and (the) insight that giving each feature or element a name imprints it on the future of the site, cuts through all the talk and establishes an objective. Now, (the) drawing demonstrates to me that the riverside warehouse can go, giving room to a worthwhile set of spaces. ...Your Lion Lane is key to whole scheme's viability.'

West Cambridge

Professor de Meyer's, Richard Owers' and my own comments on West Cambridge drew responses from both Studdert and Reid. The former stated that 'there will be plenty of opportunities to densify it in the future' while the latter added that 'the masterplan is outdated now ... we have made it clear to the University that we would look at this very openly'. Meanwhile Professor de Meyer, who held up Singapore as an exemplar for campus planning, is returning there.

Both Owers and I were careful to make clear that West Cambridge is far from complete, that the site was compromised from the outset and that the density was dictated by the planning authority. But one of the difficulties in assessing the relative success or promise of this huge site lies in the University's apparent unwillingness to allow the highly talented masterplanners – the best possible ambassadors for the scheme – to play a public role in the debate on its development. This is no way to obtain either support or, much more important, value.

Recently, relaxing its controlling grip a little, the University allowed the West Cambridge masterplanners to present the latest proposals to the City's Design and Conservation Panel. They were, reportedly, sympathetically received. In terms of (sub)urbanity, there is a determined effort to increase the intensity of use along the cycle track that forms the southern edge of the site. Much will depend on the detail – one senses that the confusions which (without the involvement of the masterplanners?) have been allowed to develop around the connection to the East Forum have already somewhat compromised the outcome.

Stirrings of support

With the closure, in the early 1990s, of *The Cambridge Review*, the University and City lost what had, in the 1950s and 60s, been a forum where planning issues were occasionally debated. We have no substitute today and nor, it seems, any time or appetite. Apart from Studdert and Reid's e-mail ripostes there have been only three written reactions to 'Time to wise up'. One, from a very senior member of the University, was that he 'was very struck by the good sense of what is written there.'

Another supportive reaction was from an independent councillor. Not wishing to turn the gazette into a battleground for local politicians, I am not reproducing any of his comments – apart from his plea for 'a single authority for the city-region ... (or) an elected mayor with the drive and commitment to deliver a coherent vision for the city over a reasonable time-span.'

Verbally, there has been plenty of (unsolicited) support for the arguments in 'Time to wise up'. Not surprisingly – people tend to be polite – no one has taken me to task for what I wrote. One civic organisation asked to be briefed and responded enthusiastically. A group of senior officers from some of the city-region authorities (not, curiously, including the City) convened to hear us out and exchange views. And a small working group has been meeting to consider the merit – or otherwise – of starting a community-based study 'to consider the context in which we shall be living in two or three decades, decide how we should address this and what we should start doing now to achieve these objectives.'

Beefing up the density at West Cambridge

'Crap' or 'good sense'? It could be either. We shall have to wait and see.

Peter Carolin chaired Cambridge Futures 1996-2001

Cambridge News

Business

Experts slam lack of planning vision

Cambridge News headlines for its article on the gazette's 'Time to wise up' feature

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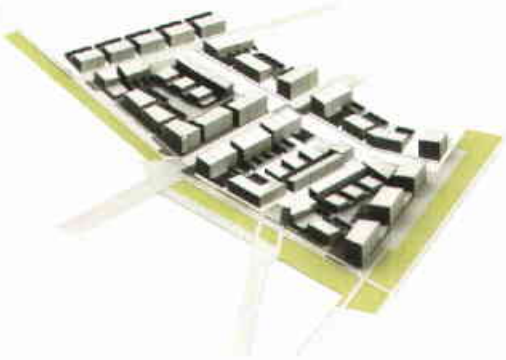

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CODE TESTING

Earlier this year, four architects - two local and two London-based - were invited to test-drive a draft of the Trumpington Meadows design code, each practice being given one area of the masterplan and asked to apply the guidance. They produced code compliant schemes, a series of comments on and criticisms of the draft design code, and a number of alternative proposals for ways in which the masterplan areas might otherwise be developed. Three submissions are presented here. The fourth - by CZWG - notable for its constructive critique of the draft code, is not included. Here, Bobby Open outlines the issues.

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1 A typical housebuilders' solution – housing clustered around car courts
2 ... as in this code compliant example by 5th Studio
3 Another code compliant scheme – for the Village Quarter – by RMJM (who rejected it as unreflective of the existing village housing form – see pp. 6 and 7)
4 Trumpington Meadows masterplan by Terence O'Rourke for Grosvenor and USS. A large new country park running from Grantchester Meadows to Harston lies on the west side.
a RMJM's parcel (pp. 6-7)
b Allies and Morrison's parcel (pp. 8-9)
c 5th Studio's parcel (pp. 10-11)
5 Location plan showing Trumpington Meadows and the adjacent country park in black

Design codes are all the rage at the moment. They can set in stone aspirations for the character and appearance of large new areas of development, and offer criteria for planning departments to judge proposals for the incremental building-out of a masterplan. For these reasons, one of the conditions of the outline planning consent for Cambridge's Trumpington Meadows urban extension was for the landowner (Trumpington Meadows Land Co.) and lead developer (Grosvenor and USS) to produce a design code for its future realisation, which has been prepared by Terence O'Rourke, in collaboration with WSP.

The Trumpington Meadows design code divides the urban extension into four character areas: the Village, Urban, Riverside and Gateway quarters. For the code-testing exercise, RMJM were given a site in the Village Quarter siding onto the Trumpington Conservation Area; 5th Studio a site bridging the Urban and Gateway quarters and fronting the proposed country park; and Allies and Morrison a site at the junction between the Village, Urban and Riverside quarters and siding onto the new local centre. This meant that the guidance for all four character areas was considered, as well as the relationship between buildings and new elements of landscape, public space and the existing village of Trumpington.

Contemporary and rational

Design code guidance for the Village Quarter begins with an analysis of the historic part of neighbouring Trumpington village. Rules are then extrapolated for view-lines, building set-backs, heights, materials, roof forms, boundary and window treatments, colour schemes and elements of landscaping. In this part of the development, it has been seen as desirable to allude to the local identity of the Conservation Area portion of Trumpington.

The remaining three character areas are 'to have a more contemporary feel closely allied with one another.' Here, the densities are to be higher, the gridded streets strongly defined by building frontages, the buildings potentially slightly taller, and with more architectural repetition. Precedent studies cite examples from central Cambridge, including Victorian terraces and Accordia.

The Trumpington Meadows masterplan offers a rational subdivision of the land into a layout of primary, secondary and tertiary streets. Following current urban design thinking, the design code places emphasis on perimeter blocks of development with active frontages, with the potential for further subdivision with mews streets and parking courts. The continuity of the built perimeter of these blocks is to be far greater in the 'urban' quarters of the development, and more varied in the Village Quarter: the difference between an informal village atmosphere and a more rigidly defined urban environment.

The three code compliant schemes presented here take on the recommendations for the block structures; RMJM and 5th Studio also consider alternatives for adjusting these layouts. 5th Studio's mews proposal is notable in its provision of a potentially increased density through future back-land development, whereas their alternative perimeter scheme creates a permeation of landscape into the centre of the block, for allotment and leisure use, blurring some of the traditional boundaries between front and back.

The challenge of the car

Parking is one of the biggest challenges in new urban design. Think of the desirable historic streets in central Cambridge such as Gwydir Street and Pretoria Road. Parking in these parts of Cambridge is generally on-street parallel to the pavement, on one or both sides of the road depending on street width; and it works. Recent developments tend to prefer allocation of parking spaces per dwelling, presumably for commercial reasons, and this presents a challenge to designers to arrive at the optimum solution.

One solution, employed in the first phase of Poundbury – the 2200 dwelling extension to Dorchester in Dorset – is that of the parking court buried in the heart of the block, away from the main streets and house fronts. This results in a car-less public realm, but the downside is that homeowners tend to use their back doors instead of their front doors, diminishing the bustle of life on the street that the parking courts were intended to encourage. The Poundbury courts also introduce the idea of 'sentinel' dwellings within the block, placed to offer passive surveillance of the parking areas. This idea is taken up in the Trumpington Meadows design code, with flats-over-garage building types (FOGs) overlooking parking courts. This rather depressing environment is thankfully questioned in the RMJM and 5th Studio alternatives.

The potential for quality

Overall, the draft design code for Trumpington Meadows offers the potential for quality development, whilst offering the flexibility for a variety of architectural responses. The Allies and Morrison scheme supports the code with an interesting and cohesive design, whilst all three proposals demonstrate the benefits of having good architects to interpret the guidance.

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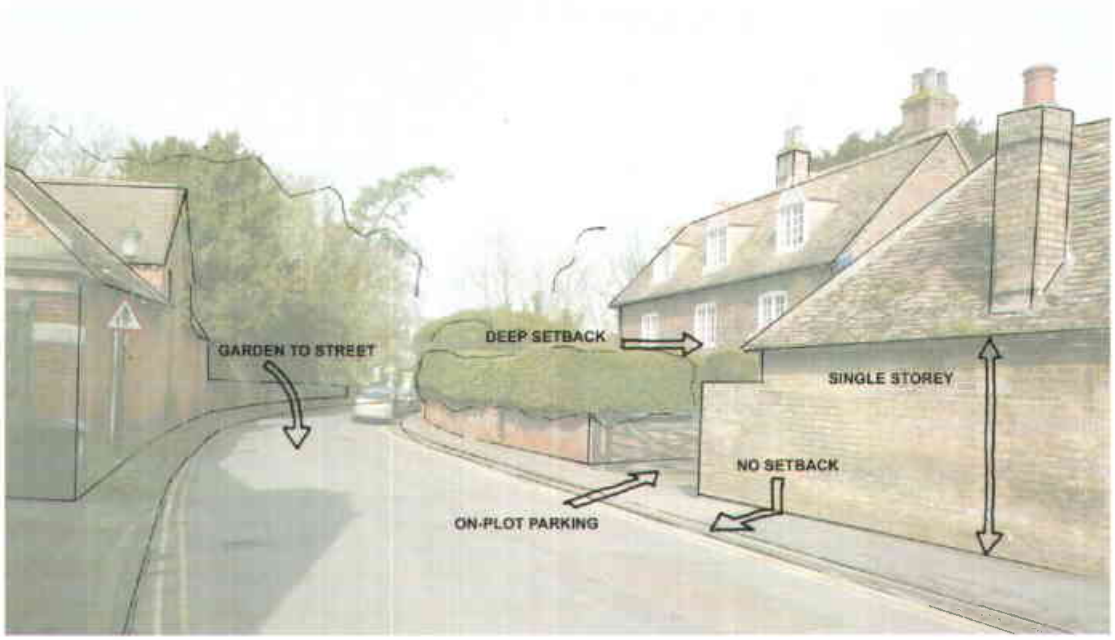
Village Quarter location

Density as designed:
30 dwellings per hectare

1



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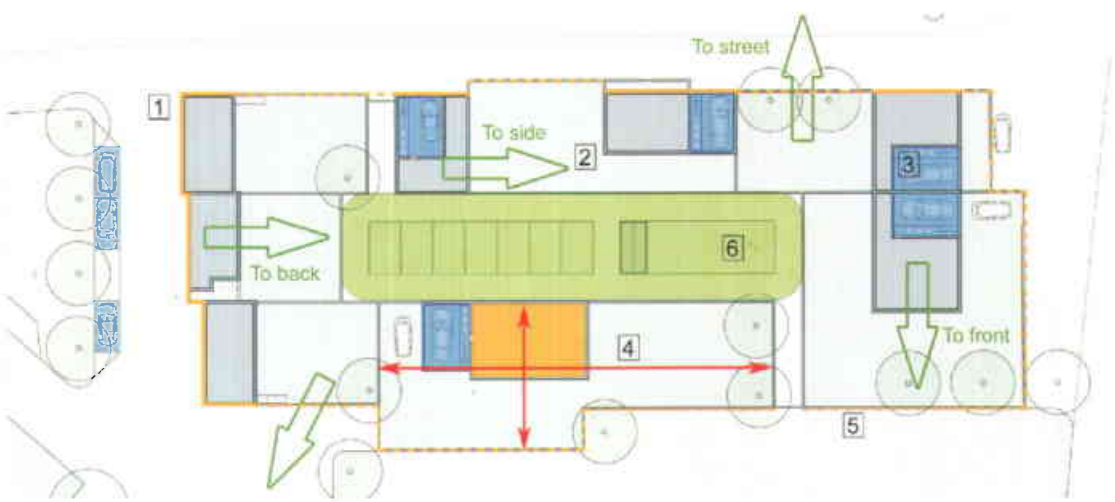

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1 Site plan
2 Trumpington village analysis
3 Study plot diagram (see key below)
1 Variety of setbacks
2 Numerous garden-to-house orientation variations
3 Mostly on-plot parking
4 Plot and unit size variety
5 Garden walls enclosing plots
6 Shared green space, allotments or larger gardens
4 Aerial view from south west of study plot
5 Further analysis of Trumpington village characteristics
6 The draft design code implies setting houses off-the-street with car parking in rear courts but ...
7 ... placing houses in gardens with adjacent car ports makes for a more 'villagey' relationship

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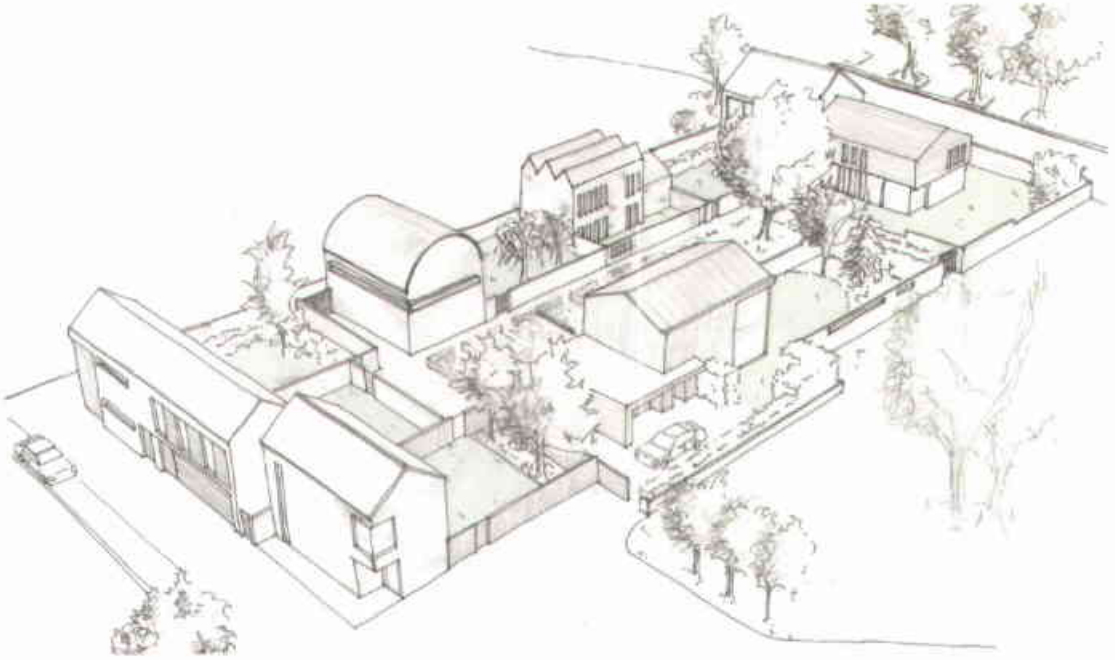

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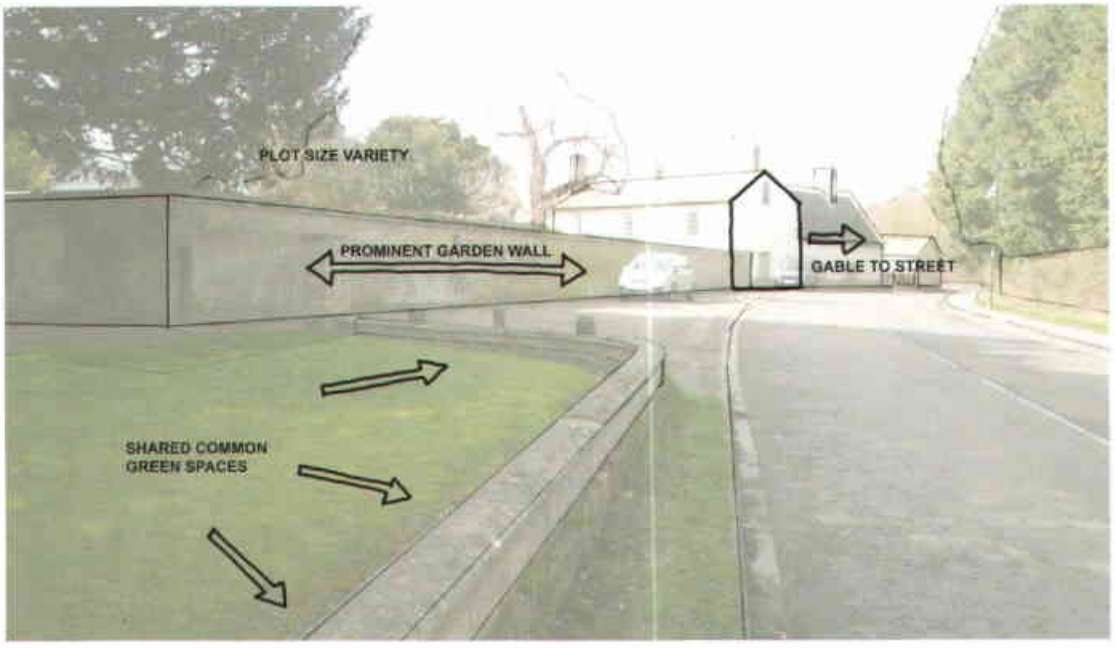

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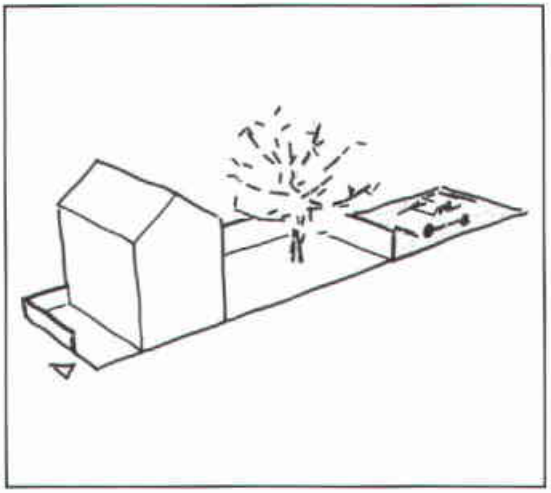

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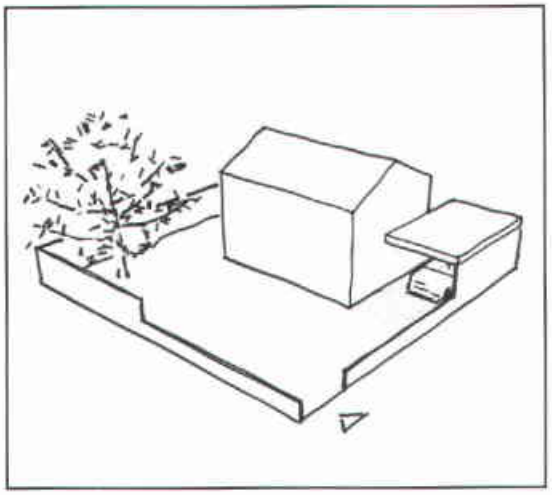

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RMJM write:

We were allocated the Village quarter and developed two proposals. The first [3 on pp. 4-5] was a literal interpretation of the code while the other, illustrated here [1,3,4 and 7] was based on an analysis of the existing village.

The principle enshrined in the draft code for this Village quarter was that all developments within it should reflect the architecture of the village's adjoining historic centre. Defining character areas in this manner can help to create identity and diversity in new developments of this size. However, we believed that the rules and analysis contained in the draft code would not produce the distinct character we sought. We therefore explored the possibility of creating a more individual identity through a more varied interpretation of the existing village's characteristics than that implied by the draft code.

The code called for no more than three houses in a row, for set-backs from the road of between 0.6 – 1.8m and implied the use of car courts to the rear of houses [6]. Based on our analysis of the village [2 and 5], our proposal allowed for a much more irregular, village-like relationship of house to garden and street [7]. We considered it important that cars should be on the individual house 'plot' in order to avoid the suburban typology of inner car courts [1 on p. 4]. In place of such car courts, we proposed communal allotments, gardens, play areas – or larger gardens [4 and 7].

We suggested that the Village quarter should be less dense than specified in the draft code. Reducing the quarter's average density to 30 dwellings/ha would allow for a greater variety of plot size, unit size and unit type – and mean that the private gardens would be more visible from the shared public areas. This could be achieved without reducing the required numbers of dwellings if the boundary to the Village quarter was relocated and the densities of adjoining quarters was slightly increased.

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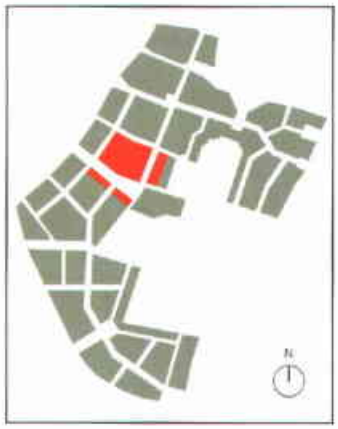


Urban Quarter location

Densities as designed:

[Refer to 5 for quarters]

Village quarter side

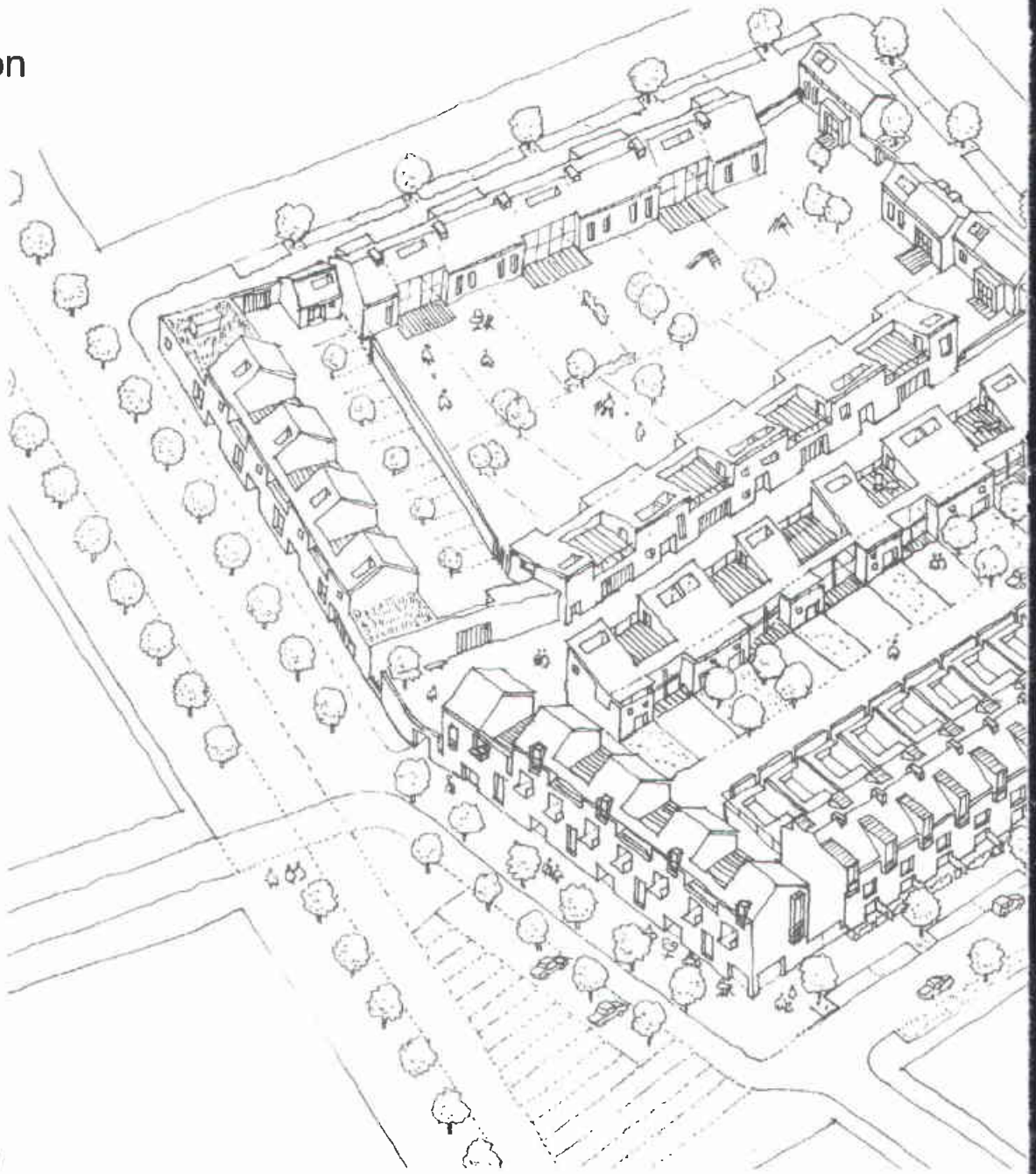
45 dwellings per hectare

River and urban quarters at centre of block

58 dwellings per hectare

Urban quarter along main route to south

165 dwellings per hectare



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1 Aerial view from the south. The square with its shops and live/work units, lower centre, lies at the intersection of the primary road, lower left to right, and a pedestrian greenway, top to bottom at left.

2 Initial concept sketch.

3 An internal frontage with access to front doors from semi-private internal space deep within a large urban block (a Low Countries' begijnhof).

4 Contemporary buildings creating a village character and transition between the urban and village quarter (Newnham College graduate housing by Allies and Morrison).

5 The frontages on the edges of this 'parcel' respond to the village (green) and river (blue) quarters and a key urban space (yellow).

6 Linkages include the primary road (red) and the pedestrian route out towards the linear park (green). A pedestrian route (blue) crosses the site.

7 Car parking access (red arrows).

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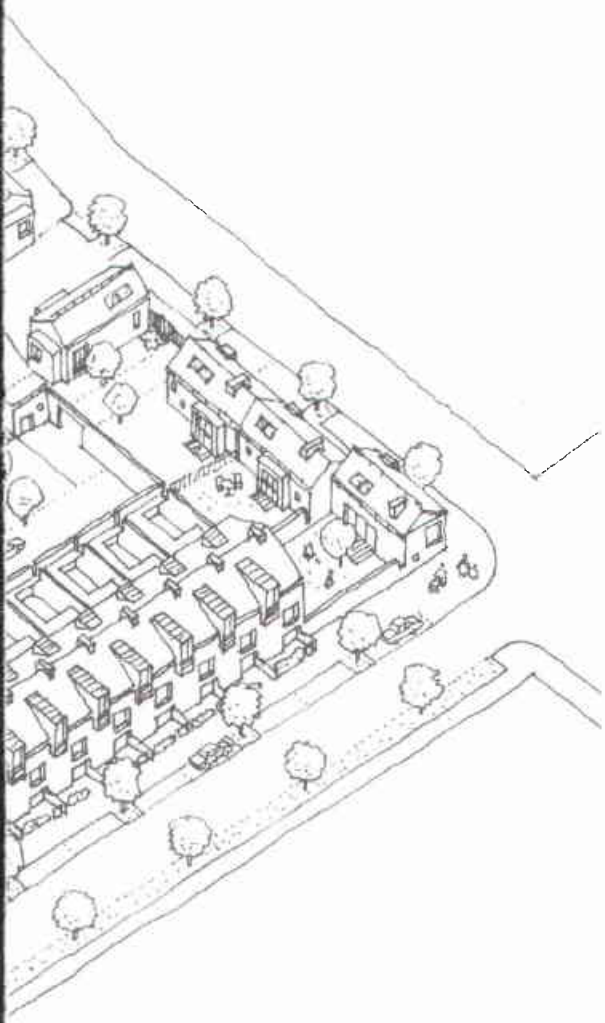

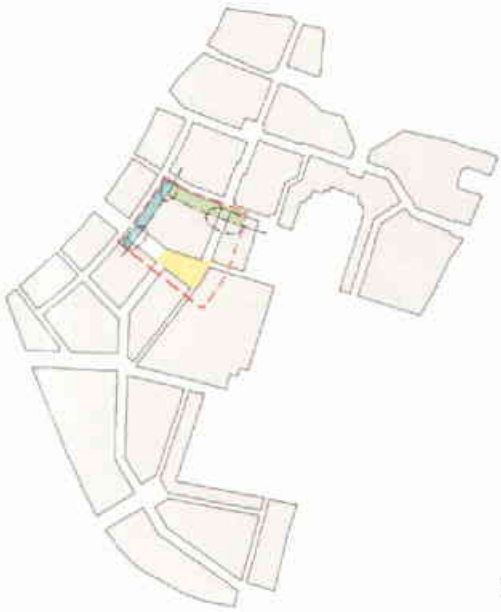

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Allies and Morrison write:

We approached the testing day from a design point of view employing all the main elements of the design code in order to test the quality of the result – analyzing, using it and evaluating the result. This parcel looked at the complex issues of interface between three quarters [5], forming a key urban space and accommodates the main north-south route through the site [6].

Forming strong street frontages is one of the key objectives of this scheme responding differently to the different areas – continuous terraces along the main routes, taller more apartment-like buildings framing the public square, large semi detached houses to the river quarters and free standing houses to the village quarters [1].

A mandatory route is required through the site bringing residential units into the centre of the block. Our proposal is to provide a variety of accommodation with the eastern block more urban with cars in the centre of the block providing access to parking from the rear of properties [7], avoiding vehicular access from the main road, with harder courtyard amenity spaces.

The western block offers a more traditional back garden approach with parking access from the mews and river quarter secondary streets. The two areas to the south of the block required parking at the rear with ground floor live/work units setting the constraints and nature of these blocks very clearly [7].

Creating new links through the centre of larger urban blocks always brings the danger of a potential rat-run/through route with it. This was questioned and unanswered – for example, what about service vehicles, they will have to be able to turn around if closed at one end creating unnecessarily wide and wasted street space. We believe a through-route mews can be designed to discourage a busy through route.

Our overall conclusion was that the design code will result in a positive design with not too many constraints but creating a distinct character as a result.

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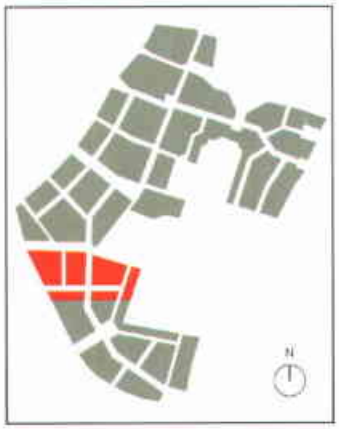
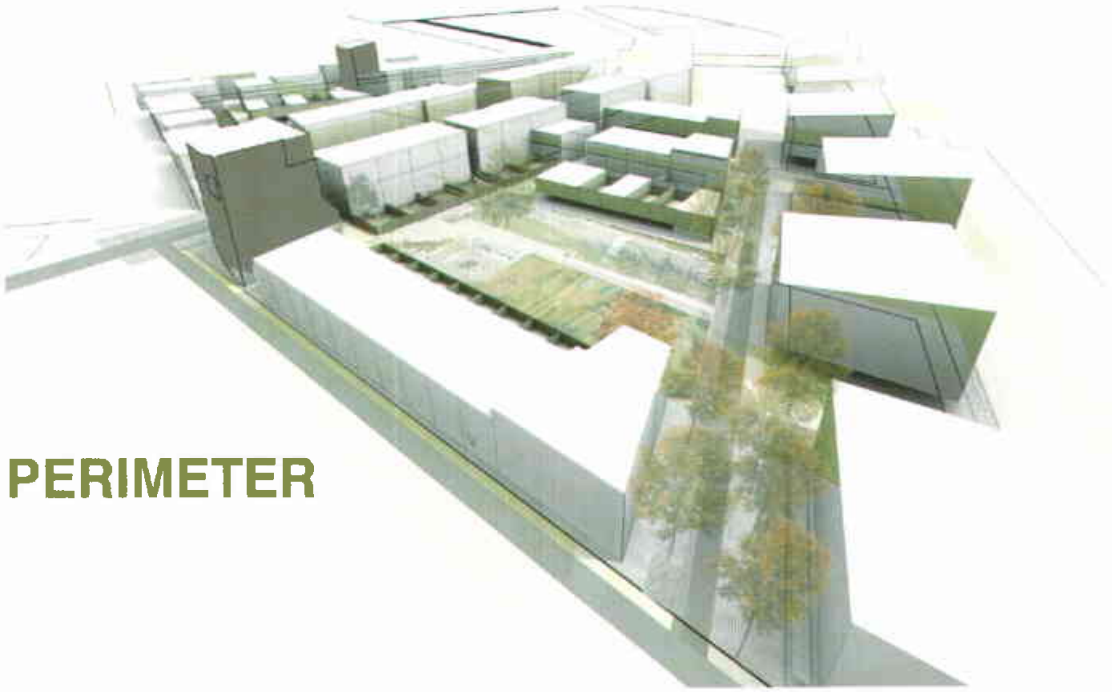


Gateway Quarter location

Densities as designed:
Perimeter scheme
60 dwellings per hectare
Mews scheme
70 dwellings per hectare with capacity to increase to 90-100



1

PERIMETER

2

a shared semi-private landscape
b stronger frontage
c occasional taller (4-5 s) buildings
d talent (future) connection via LAP
N

3

1 Overview showing a typical larger block interior
2 Examples of how the block interior might be used as an allotment garden or a play area
3 Plan of the perimeter scheme
4 Example of how a new mews might look with later backland development
5 Mews precedents – Prospect Row
6 ... Warkworth Street/Prospect Row
7 ... and Melbourne Place/Mud Lane
8 Proposed mews block – as built
9 Proposed mews block as it might develop with infill, garages with flats over, sheds and so on
10 Plan of the mews scheme

All plans are at the same scale (approx. 1:2500)

4

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MEWS

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5th Studio write:

Our initial exploration of a code-compliant scheme [2 on p. 4] – within the masterplan block parameters – identified two key concerns:

- the unsatisfactory character of the block interior/parking courts that are invariably found in perimeter block schemes – as Cambourne [1 on p. 4]
- the limited formal articulation achievable within the constraint of 2 or 3 storey buildings

We also identified two possibilities:

- the opportunity for more significant development overlooking College Green – the large open space serving the school to the north of our site
- the creation of a positive edge along the boundary to the park-and-ride area

The first alternative scheme that we developed [PERIMETER on the opposite page], posited the creation of a larger perimeter block. We maintained the required pedestrian and vehicular routes within the block but treated these as a 'home-zone' environment in which people and vehicles share the road space safely.

The larger scale of the block interior reduces the impact of tarmac and parking and the links between the green spaces of the interior and the landscapes of the edge creates a green continuum within the scheme [2 and 3]. Increasing the height of carefully chosen 'landmark' elements allows this alternative perimeter scheme to achieve a density which complies with the masterplan.

The second alternative proposal [MEWS on this page] explored a strategy offering greater long-term adaptability and density and followed the layout of those central Cambridge residential areas which both achieve the appropriate density and are highly desirable.

The classic street and mews plan found in the Garden of Eden (the area round Melbourn Place and prospect Row) [5-7] creates a clear hierarchy between front street and rear service road – accommodating on-street parking, refuse bin and bike storage in an orderly manner. A simple parallel road grid was created – with all streets having a clear view to the landscape to the east or west and with dimensions adjusted so that turning-heads were not required.

In a Phase 1 mode this mews scheme achieves code-compliant densities. In a later Phase 2 scheme, with the mews plots fully developed, significantly higher densities can be achieved.

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THE PLACE WHERE YOU LIVE

As at Trumpington Meadows, density and built form determine the essential character of our housing areas. Jonathan Brookes explains with the aid of local examples, old and new, city and suburban.

Cambridge's growth sites need to be more than just 'estates'. They should be the product of a more sophisticated approach – using land sparingly and distributing dwellings in relation to local facilities and transport. Density and its corollary – built form – are key factors in creating successful places.

Historically, the density and built form of successful places were linked and governed by movement patterns and accessibility. Such places have a 'density profile' in which densities are higher in the middle of a neighbourhood, close to shops, services and public transport links and lower away from them. The same tends to apply more generally at the scale of a town or city – with densities rising and falling depending on the proximity to the centre or major transport links.

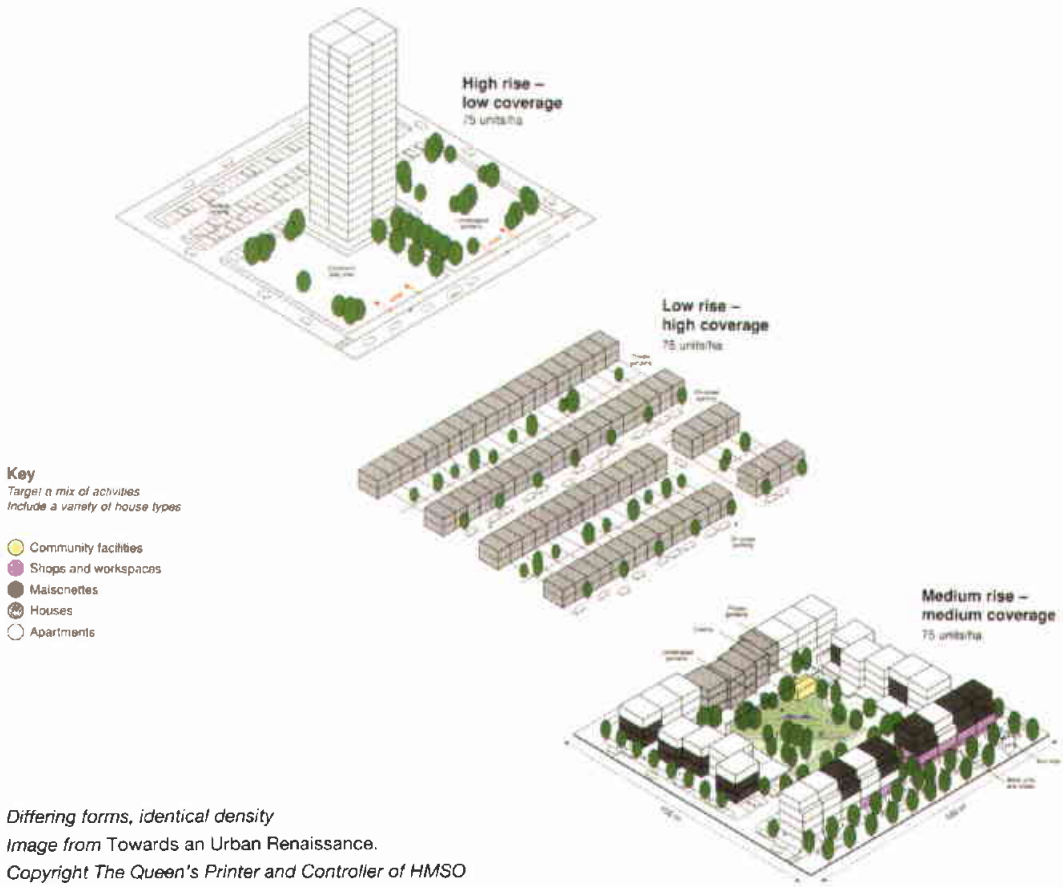
Competition for land generates different responses in terms of building typologies – tower or terrace, court or cottage. Many 'new' developments contain a mix of typologies but neither respond to the underlying movement network nor get to grips with the challenges of higher densities (dwelling identity, private amenity space, car and cycle parking, refuse storage and collection, maintenance of the public realm and so on). The case studies opposite consider the relative success and failure of four places with different densities and building types.

Cambridge's growth sites have various density bands applied to them as a way of helping to ensure that certain numbers of houses can be delivered. However, there is a tendency to view these bands as blanket figures – inflexible and limiting. There is also a general fear of building at higher densities – the high-rise, but not high density, blocks of the 1960s and 1970s are often cited as a reason not to do so again.

Look at the drawing below. The developments shown are all at 75 units (or dwellings) per hectare – but create very different places. Moreover, density isn't a band or a blanket but is much more fluid than that. Using different forms of building typology, an average density band can, in response to location, be lowered in one place and raised in another.

We need to be positive about density and use it to help structure successful places. Relatively high density, flexibility and variety are important considerations – qualities that are evident in many successful and enduring places. This is where the medium-rise/medium coverage model in the drawing below has many advantages. The result is the kind of place that people enjoy with a mix of dwelling types and land uses located and informed by the surrounding area. It creates neither the hostile wastes of a high-rise estate nor the isolating enclaves of 'anywhere housing' development.

Jonathan Brookes is a Principal Urban Designer in the City and South Cambs Joint Urban Design Team



Differing forms, identical density
Image from Towards an Urban Renaissance.
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Bateman Street (94 units/ha) demonstrates the flexibility of the built form to accommodate change over time. Houses have been sub-divided into flats or bed-sits that increase densities still further. The density of the area and proximity to the city centre coupled with the ability to walk to local shops and services results in low car ownership reducing pressure for car parking. Whilst the building types are robust, the amount of private amenity space is limited and there is little room to accommodate the bins and bikes that clutter the public realm.

Derby Street (90 units/ha), is compromised in many ways – but its proximity to the city centre, local facilities and significant nearby open space results in a dense development that is both popular and enduring. Car parking is 'on street' making efficient use of the space and the lack of formality increases the capacity to accommodate vehicles. The short street lengths and parked cars serve to reduce vehicle speeds and with a little imagination could create the kind of Woonerf ('home zone') streets prevalent in Holland and Germany.

Ravensworth Gardens (78 units/ha) demonstrates what happens when you try to accommodate higher density, parking and open space standards with standard typologies. Formalising car parking spaces can reduce capacity. The partially sunken car park detaches the open space from the street and compromises the quality and safety of the space. This development illustrates the difficulty of trying to reconcile 'standards' in new developments. The pressure on the site and the use of standard housing types 'dressed' in Victorian detailing creates a development that achieves mixed results.

Teasel Way (25 units/ha) is a classic 1980s development and demonstrates how at low densities the streets and their functions can become somewhat disconnected. Cars and car parking dominate frontages and spill over onto the street and pavements compromising the public realm. Buildings are pushed back reducing any sense of enclosure. Overall the lower density creates flexibility in terms of accommodating present and future needs of the residents but the low density also results in increased car dependence as residents 'travel' to access shops and services.

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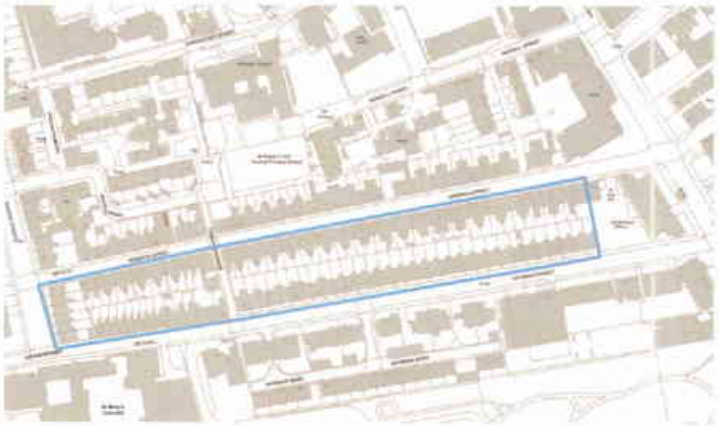

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CAMBRIDGE DESIGNED
NEW BUILD AND EXTENSIONS

A selection of recently completed buildings designed by Cambridge-based practices. Submissions for this section are welcomed by the editors at the email addresses on p. 16

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Multi-function university building

Buckinghamshire New University's Gateway [1] is a landmark building accommodating a learning resource centre, a multi-purpose hall, computing teaching space, specialist space for music, drama, dance and multi media, gymnasia, a lecture hall, a main reception, supporting administration and social and recreational space on a constrained and sensitive urban site. Architect RMJM's vision was to create a sustainable and contemporary building that provides facilities for the student body and establishes a new and distinctive identity for the University.

www.rmjm.com
www.bam.co.uk

Library and resources centre

Hughes Hall's state-of-the-art learning and book storage space [2] was designed by Bidwells to make the most of its garden context. Site constraints demanded that the building elements be craned over the roof of the listed College building and the construction method was geared toward lightweight materials and easily manoeuvred frame elements. An almost fully glazed, north facing garden façade and careful manipulation of internal views, circulation and book storage has achieved a very open and expansive feel within a compact plan. Internal finishes generate a calm and congenial atmosphere for learning and have been extended into existing College spaces to form a coherent link between new and old.

www.bidwells.co.uk
www.cubitt.co.uk

Research institute

Designed by Annand and Mustoe for the Institute of Astronomy, the two-storey Kvali Institute for Cosmology [3] contains 55 workstations in single and shared offices and a large seminar room. Its close proximity to the Hoyle Building enables three-way scientific and social interaction. The predominantly timber construction gives the building its own identity – a brief requirement. Careful orientation, low embedded energy, material re-use and sourcing, high levels of insulation, passive ventilation, rainwater harvesting and geothermal energy use have contributed to an 'Excellent' BREAM rating.

www.amarch.co.uk
www.barnesconstruction.co.uk

Office building

Linden Square is a three storey office building [4], situated within the curtilage of a Grade II Listed Building in Bury St Edmunds. Camal Architects' heavily constrained design takes the form of an L-shaped block visually broken up into four smaller buildings with lower 'link' sections and careful roof detailing; this has been very effective in reducing the apparent mass of the building. Materials are decorated render on the ground floor and whole flints with red brick detailing on the first and second floors. The roof is covered in natural slate and lead. The building has obtained an EPC at 'B' grade, and was 70% let at completion.

www.camalarch.com
www.rgcarter-construction.co.uk

Garden extension

This garden extension to a Victorian semi-detached house in the de Freville area of Cambridge [5] involved moving the kitchen into the original dining room to create space for a large south-facing living and dining area with wide glazed doors opening onto the garden. Oak is used extensively in the sliding-folding doors, windows, kitchen rooflight, flooring and

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cabinets - fixed items of joinery akin to the loose furniture of inhabitation. The project included further refurbishment of the original house. The architect was Bobby Open.
www.bobbyopen.com
johnmfofford@btconnect.com

Terrace house extension
A ground, first and second floor extension on Earl Street [6]. The relatively complex geometry of the extension was an imaginative response to the need to minimize overbearing and overshadowing of neighbouring properties. Owing to its sensitive location at the heart of a conservation area, architect Sabin Anca's negotiations with both the neighbours and the local authorities proved critical in ensuring that the client's requirements were met with minimum compromise.
www.stateofdesign.com
peter@axtonconstruction.co.uk

St Edmundsbury cathedral – correction
The ceiling illustrated in CAg 59 was designed by The Gothic Design Practice and not, as stated, by the executive architect, Freeland Rees Roberts.

GRADE 2* RENOVATIONS
THREE COLLEGE BUILDINGS

Cambridge has no Grade 1 post-war listed buildings (Oxford has one) but all three of its Grade 2* buildings of the period are the subject of recent or impending renovation

Harvey Court, Gonville and Caius College
Designed in the studio of Leslie Martin and his associates (Patrick Hodgkinson principal assistant), Harvey Court [1] was completed in 1962. A second court, intended to extend from the south-east corner was never built. In 2007, a new porters lodge by the Stephen Hawking building replaced the lodge in Harvey Court.

The raised central court and terraces of Harvey Court have not worn well. There are also issues relating to changed patterns of use, disabled access, accommodation and rising standards (related to both student requirements and the vacation conference business).

Extensive repair and upgrading work commences this summer (Levitt Bernstein, architects). A relatively discreet new entrance will be formed at the north-west corner, the court repaved in brick and the brick berm around the breakfast room rooflight reinstated. The renovation will cost around £10 million – powerful evidence of the College's commitment to securing the future of this building.
www.levittbernstein.co.uk
www.kier.co.uk/construction

Orchard Court, Murray Edwards College
Designed by Chamberlin Powell and Bon, New Hall (as it was) opened in 1965. Extensive renovation works were carried out to the Hall and Library 1998-2003 (RH Partnership, architects). The Orchard Court [2] project will refurbish student bedrooms, fellows' offices, bursary and administration offices.

The refurbishment (also by RH) includes the provision of external escape stairs and remodelling of the top floor to retain the duplex split level rooms. The brick and concrete interiors will be softened with extensive new pinboards, lighting and furniture. The building will be re-serviced with new shower rooms and gyps.

The safety upgrade was completed in 2007 and refurbishment of fellows' offices and a sample bedroom was completed in 2008. Works to repair and stabilise the concrete and brickwork and to refurbish the interior of the north wing facing Huntingdon Road was completed in June. Remaining phases include the refurbishment of the east and west wings and refenestration of the whole building.
www.rhpartnership.co.uk
www.haymills.com

Cripps Court, St John's College
Designed by Powell and Moya, Cripps Court [3] was completed in 1967. Twenty years later, the original common room was replaced and extensive work undertaken on the roofs.

New kitchens and ensuite shower rooms are being installed, where this can be done without damaging the character of the spaces. Original furniture is being restored and missing pieces replaced.

The original Portland stone and concrete facades with their distinctive bronze windows will be retained and refurbished. Significant improvements in services installations, including solar water heating, are being made. The building is being re-roofed (correcting earlier overloading) and balustrading added to make the roof terraces accessible again, as originally intended.

Phase 1 began on site in 2009 (RH Partnership, architects) and is due for completion in December. Work is being carried out by the College's own buildings team with outside specialists where needed.
www.rhpartnership.co.uk

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Cover: Three perspective views by 5th Studio of the Trumpington Meadows frontage facing the new country park. From top to bottom: code compliant, perimeter block and mews alternatives. 5th Studio cited Wisbech's terraced waterfront development as a possible precedent, forming a positive and appropriately scaled edge to the park.
Cover design and location plans on pages 6,8 and 10 by Bobby Open.

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